



## GUALITY CERTIFICATE

Vessel	"Penn - 120"	Port	Providence, RI	Report	014704
Customer	Sprague Energy	Date	January 22, 2004	Reference	
Operation	Analysis	Terminal	Sprague Energy Providence	Sample #	368054

Name of material being tested Description of sample source Samples Drawn by (company) Samples Tested by (company)

## #6 Fuel Oil

Shore Tank # 6 After Discharge Inspectorate America Corp. Inspectorate America Corp.

Tests being Performed	Test method	Sample Results
Gravity API @ 60 F	D - 4052	11.6
Flash Point, PMCC, F	D - 93	194
Viscosity cSt @ 122 F	D - 445	374.5
Viscosity SFS @ 122 F	D - 1261	176.79
Pour Point, F	D - 97	27
Sulfur, wt %	D - 4294	0.972
Water by Distillation, vol %	D - 95	0.30
Gross Heat of Combustion, BTU / lb	D - 240	18,445
Gross Heat of Combustion, BTU / gal	D - 240	151,896
Water and Sediment, vol %	D -1796	0.30
Ash wt %	D - 482	0.054
Ashphaltenes, wt %	IP - 143	7.14
Sediment by Extraction, wt %	D - 473	0.04
Vanadium, ppm	D - 5863	92
Sodium, ppm	D - 5863	36
Conradson Carbon Residue, wt %	D - 189	12.02
Nitrogen, wt %	D - 5762	0.46
TERMINAL IN TANK ON THE DATE OF THIS ANALYSIS IS PROVIDED TO THE ESTABLISHING THE INDEPENDENTLY A COMPOSITE BASIS IN SPRAGUE'S T CERTIFICATE THE INSPECTION REPO PURPOSE, SPRAGUE DISCLAIMS ANY BY SPRAGUE TO CUSTOMER, SPRAGE	S OF THE PRODUCT AT THE SPRAGUE INSPECTION NOTED ON THE CERTIFICATE. CUSTOMER FOR THE PURPOSE OF VERIFIED PRODUCT SPECIFICATION ON IERMINAL SHORE TANK AS NOTED ON THE DAT IS NOT TO BE USED FOR ANY OTHER LIABILITY FOR THE PRODUCT AFTER DELIVERY	

<sup>\*\*</sup> Annotates Analysis Contracted Out